

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No: 50-128

License No: R-83

Report No: 50-128/97-201

Licensee: Texas A&M University

Facility: Texas Engineering Experiment Station
Nuclear Science Center

Location: College Station, Texas

Dates: November 3-5, 1997 and November 2-5, 1998

Inspector: Stephen W. Holmes, Reactor Inspector

Approved by: Seymour H. Weiss, Director,
Non-Power Reactors and Decommissioning
Project Directorate

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EXECUTIVE SUMMARY

This combined reactive and routine, announced inspection consisted of the review of selected conditions and records since the last inspection, verification of corrective actions previously committed to by the licensee, review of licensee actions pertaining to two reportable occurrences, and related discussions with licensee personnel. The inspection was conducted in accordance with the guidance of Nuclear Regulatory Commission (NRC) Inspection Manual.

The reactor operations and security programs were being implemented as required by licensee and applicable regulations. Reactor surveillances, maintenance activities and internal audits were acceptably tracked and controlled by use of an extensive computer scheduling program. Reactor staffing and training satisfied license and regulatory requirements. Staff response to a stuck control rod October 30, 1997 and subsequent licensee procedure and operational changes were acceptable. Licensee proactive investigation of all scram circuits and subsequent modifications to the systems to prevent failure similar to that experienced by another research reactor was commendable. Eight previous violations were closed and one Non-Cited Violation was issued for operating without functioning air monitoring systems required by section 3.5.1 of the Technical Specifications.

Report Details

Summary of Plant Status

During the inspection the reactor was operated daily to support experiments, training, and service work. Normal periodic maintenance and operational checks were being performed. Material shipping and receiving operation were ongoing.

I. Operations

O1 Conduct of Operations

O1.1 Reactor Staffing

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed reactor staff qualifications, operations logs and records, selected events, and interviewed staff. Also, shift turnovers for both shifts were observed.

b. Observations and Findings

Operators consisted of the Nuclear Science Center Director (NSCD), the Assistant Director (NSCAD), the Operations Manager (NSCOM), and in excess of ten Senior Reactor Operators (SRO) and Reactor Operators (RO). The reactor staff satisfied the training and experience required by the TS. Operation logs and records confirmed that shift staffing met the duty and on-call personnel requirements.

c. Conclusions

The operations staffing of the NSC reactor satisfied TS requirements.

O1.2 Control and Performance of Experiments

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed approved experiment records, reactor logs, experimental data, Reactor Safety Board (RSB) minutes and interviewed staff. The inspector also observed the removal, surveying, and packaging of an iridium seed experiment.

b. Observations and Findings

Each experiment had been reviewed and approved by the reactor staff or was referred to the RSB as required. Review of the experiment procedures and

reactor log books, interviews with staff, and observation verified that experiments were constrained as required by the TS and experiment authorization. The experiments were also installed, performed, and removed as outlined in the experiment authorization and procedures. The RSB review of experiments ensured evaluation for unreviewed safety questions or TS changes.

Observation of an iridium seed experiment confirmed that experiments conformed to TS, pertinent requirements, and that there were safety constraints for the identified hazards. During the retrieval one of the cans became stuck in the transfer tube from the irradiation tube to the shipping cask. The two person team responded without hesitation and, with tools prepared for such a circumstance, extricated the can and inserted it into the shipping cask. The use of handling tools, shielded work chambers, and a team approach demonstrated that the ALARA concept was followed by the staff.

c. Conclusions

Control and performance of experiments met TS and licensee requirements.

01.3 Reactor Operations

a. Scope (Inspection Procedure 69001)

Reactor operations logs, fuel logs, scram logs, and periodic checkout, start-up and shutdown checklists were reviewed. Start-up, steady state power operations, experiment retrievals, and shutdowns were observed.

b. Observations and Findings

Reactor operations were carried out following written procedures and TS. Observations by the inspector confirmed that information on operational status was recorded in log books and checklists as required by procedures and TS. Use of maintenance and repair logs satisfied pertinent requirements. Significant problems and events noted in the operations log were reported and quickly resolved as required by TS and administrative procedures.

c. Conclusions

Operational activities were consistent with applicable requirements.

01.4 Fuel Handling

a. Scope (Inspection Procedure 69001)

Reactor operations and fuel logs, and periodic checkout, start-up and shutdown checklists were reviewed.

b. Observations and Findings

Procedures for refueling, fuel shuffling, and TS required inspections and surveillances were extensive and detailed, ensuring controlled operations. Fuel movement, inspection, log keeping, and recording followed the facility's procedures. Data recorded for fuel movement was clear and cross referenced in fuel and operations logs. Radiological controls and procedures conformed to health physics (HP) ALARA principles.

c. Conclusions

Fuel handling activities and documentation were as required by TS and facility procedures. No safety concerns were identified.

O2 Operational Status of Facilities and Equipment

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed reactor equipment, evaluated the physical plant, and observed the facility and equipment during a tour.

b. Observations and Findings

Equipment was accessible with little extraneous clutter. All required equipment and facilities observed by the inspector were operational.

A Grove Manlift purchased to replace the crane lift elevator for the irradiation cell was in house.

c. Conclusions

Reactor and support facilities were operational as required.

O3 Operations Procedures and Documentation

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed operating procedures and updates, reactor operating records and logs, license amendments and RSB minutes. Observations included the use of procedures during operations.

b. Observations and Findings

Written procedures required by the TS were available and used by the facility staff. Adherence to the procedures was acceptable. Procedures were routinely updated as needed. Minor changes were authorized by the NSCD or his designee while other changes were referred to the RSB as required. Current facility procedures had been reviewed and approved by the RSB as required by TS.

License Amendment No. 14 modified the amount, type, and use of radioactive material possessed by the NSC reactor to allow greater flexibility in performing research and development activities. Violation 50-128/9701-07 for possession of radioactive material for an unlicensed activity is closed.

Records of power level, operating periods, unusual events, calibration and maintenance procedures, installed experiments, and start-up and shutdown checks were being kept. The facility's logs and records were clear, concise, and legible. The annual reactor operating reports, logs, and records acceptably documented reactor operations activities. Reactor operations and testing were documented as required by the TS.

Scrams were identified in the logs and records, and were reported and resolved as required before the resumption of operations under the authorization of a SRO.

c. Conclusions

Facility operational procedures satisfied TS requirements. Reactor operating records and logs were being maintained as required by TS. Significant problems and events identified in the logs and records were reported and resolved as required.

05 Operator Training and Qualification Program

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed requalification program records, NRC license, training records and interviewed staff.

b. Observations and Findings

All operators and senior operators were participating in the ongoing training as required by the NRC approved requalification plan. Lectures were conducted and training given for abnormal and emergency procedures as required. The lecture outline for the reactor operator requalification program included appropriate subject material and a comprehensive written examination. Training records contained the documentation required by the requalification program.

The facility had one individual responsible to track and coordinate all required TS surveillances, checks, testing, training, audits, etc. Operator hours were tracked to ensure that performance requirements were met. Checklists were used for tracking requalification requirements and ensuring that the plan elements were accomplished.

The inspector verified that formal classes/lectures were given every four months, that the operators attended them as required, and that biennial physicals had been performed as required.

Violation 50-128/9701-01 for failure to schedule lectures within a 4-month interval as required by the NRC approved requalification program is closed.
Violation 50-128/9701-02 the failure of individuals to attend requalification lectures as required by the NRC approved requalification program is closed.
Violation 50-128/9701-03 the failure of operators to have physical examinations every 2 years as required by 10 CFR 55.21 is closed.

c. Conclusions

The requalification program was being acceptably implemented. TS and NRC-approved requalification plan requirements were met.

O6 Organization and Administration

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed organization, staffing and administrative controls, and interviewed management and staff.

b. Observations and Findings

TS section 6.0 prescribes the line management organization structure for the NSC reactor. The Deputy Director Texas Engineering Experiment Station (TEES), the NSCD, the SRO on duty, and the operating staff comprise level 1 to 4 management. A radiation safety officer (RSO) and the RSB make up the rest of the organization. All positions were filled with qualified personnel. No changes have been made in the TS required structure.

c. Conclusions

Organizational and administrative controls remain consistent with TS and license requirements and commitments.

O7 Quality Assurance in Operations

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed RSB minutes, annual reviews, audits, and interviewed staff.

b. Observations and Findings

RSB membership satisfied TS requirements and the Committee's procedural rules. The RSB had meetings as required. Review of the minutes showed that the RSB provided guidance, direction, safety oversight, and ensured suitable use of the reactor.

The committee's reviews of experiment authorization E-25 -- a change to the Iridium seed production -- and the new I-125 experiment proposal, were detailed and comprehensive. The RSB reviews of two reportable occurrences, a stuck fuel rod, and operating in violation of a limiting condition for operation (LCO) and the subsequent approvals of procedure and facility changes demonstrated that the RSB was actively performing its duties.

Evaluation of the committee's review and approval of proposed changes to the reactor's scram circuits additionally verified that the RSB was performing its review duties as required

Required audits of reactor facility activities and procedures, equipment changes, proposed tests or experiments, had been performed and documented. Deficiencies identified by the audits were evaluated by the NSC staff and corrective actions taken as needed. RSB audits were effective. Violation 50-128/9701-04 the failure to perform audits as required by TS is closed.

c. Conclusions

The RSB performed its review, audit, and approval duties as required by license, TS, and administrative criteria.

08 Miscellaneous Operations Issues

08.1 Reportable Occurrence- Stuck shim safety No.2

a. Scope (Inspection Procedure 69001)

The inspector reviewed reactor logs, RSB minutes, facility procedures, maintenance logs and records, the FSAR, as built drawings, interviewed staff and attended a root cause analysis meeting held November 4, 1998, by the NSC staff.

b. Observations and Findings

On Thursday, October 30, 1997, during an evening lab, Shim Safety No. 2 (SS2) became stuck in a withdrawn position. Subsequently the rod failed to scram and had to be inserted using the control rod drive. The licensee identified this as a reportable occurrence according to their TS and made a 24 hour notification by telephone and e-mail, followed by letter dated November 11, 1997, Final Report of The Reportable Occurrence of October 30, 1997.

The Inspector initially visited the facility November 3-5, 1997, to investigate and evaluate the stuck rod/scram failure. Follow-up was done during the scheduled inspection November 2-5, 1998.

During withdraw of SS2 for a 500kW run, rod status lights provided conflicting indications as to its position. This occurred a number of times while stabilizing rod position. After visually verifying that SS2 was raised, the SRO attempted to scram the rod. Although status lights indicated SS2 had disengaged, it did not scram, indicating a stuck rod. The SRO then directed shutdown of the reactor and made notifications as required by procedures.

On Friday, October 31, 1997, after pool water sampling identified no contamination, the NSCD and NSCAD partially unloaded the core, inspected for damage, investigated the cause of the failure, corrected the identified cause, reassembled the core, performed rod drop tests, and authorized reactor operation in accordance with TS.

The apparent cause of the failure was a misaligned hold down foot, whose design allowed for a 0.125 inch clearance. The facility procedure called for "approximately" 0.250 inches to allow for expansion. Since previous rod drop tests in early mid September and early October, 1997 were normal, it is believed that the rod drive was most likely "bumped" out of alignment during its recent change out for annual maintenance.

The staff, at the November 4, 1998, root cause analysis meeting attended by the inspector, found that the operators made the correct responses to the indications of a stuck rod and that the responses followed facility procedures, meet TS requirements, and the ALARA philosophy. Additionally, they determined the cause to be incorrect spacing of the rod hold down foot, which allowed the foot to be bumped out of alignment. Corrective action, as approved by the RSB, was to modify the procedure to measure this height prior to disassembly, then on assembly adjust the clearance to between 0.125 and 0.250 inches and remeasure the height to ensure it is within 1/16 inch of the initial height.

The inspector confirmed that the responses by the operators were acceptable, procedures and TS were followed, and that the reactor was safely shutdown as required. Notifications to licensee staff and the NRC were made on time and followed procedures, TS, and applicable regulatory requirements. The inspector verified that the procedure changes had been made as reviewed and approved by the RSB and that the initial rod drive heights had been measured for future comparison.

c. Conclusions

Licensee actions regarding the reportable occurrence of stuck shim safety No.2 were acceptable.

08.2 Reportable Occurrence- Operations Without Facility Air Monitoring System

a. Scope (Inspection Procedure 69001)

The inspector reviewed reactor logs, staff and RSB meeting minutes, facility procedures, thermal column air monitor charts, logged radiation area monitor (RAM) readings, maintenance logs and records, and interviewed NSC staff.

b. Observations and Findings

During the afternoon/evening of August 26, 1998, the reactor was run for approximately eight hours with no facility air monitoring (FAM) or replacement system operative, a violation of TS 3.5.1 Radiation Monitoring. The licensee identified this as a reportable occurrence according to their TS and made a 24 hour notification by telephone, followed by letter dated September 8, 1998, Reportable Occurrence at Texas A&M University Nuclear Science Center on August 26, 1998.

On the morning of August 26, 1998, the TS required FAM # 4 became inoperative and, as allowed by TS, the NSCAD, NSCOM, and the reactor administrative assistant decided to use FAM #2 as a temporary replacement. The duty HP (DHP) did this rerouting by adjusting air flow valve line-ups and detector alarm set points at the detector station in the tunnel area. Tag-outs were used but no second check was performed on the valve line-up. The reactor continued to operate for approximately eight hours.

The next morning the DHP identified to the NSCOM that the count rate on the FAM was extremely low. Subsequent investigation determined that the valving was improperly configured and that an end cap was missing from a sample line, rendering the system incapable of monitoring particulate or gaseous effluents.

A staff meeting was held August 27, 1998, to discuss and determine the cause and make recommendations for corrective actions. These were evaluated and approved by the RSB on October 29, 1998. The contributing factors were that there were no written normal or abnormal valve line-up procedures, no second checks were performed on the valve line-up, that low FAM readings were not identified as a system failure, and that a broken end cap had not been replaced, leaving one sample port open to the air in the tunnel. The corrective actions were to write procedures and provide staff training on valve line-ups, revise tag-out procedures to include second checks, label valves to correspond with their drawings and written procedures, and to replace the missing end cap to ensure all sample ports will be sealed during operations.

Notifications to licensee staff and the NRC were made on time and followed procedures, TS, and applicable regulatory requirements. The inspector verified

that the procedure changes, as reviewed and approved by the RSB, had been made, the valves had been labeled, and the missing end cap replaced.

During the time the FAM was inoperative, facility RAMs as well as the thermal column air monitor were operative. Both, though not as quickly, would have detected elevated gaseous or particulate effluents during the eight hour run. The inspector verified that logged RAM readings, thermal column air monitor chart readings, and subsequent facility contamination surveys were normal, indicating no airborne releases while the FAM was inoperative.

c. Conclusions

Licensee actions regarding the reportable occurrence of operations without facility air monitoring system were acceptable.

This licensee-identified and corrected violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1 of the NRC Enforcement Policy. (NCV 50-128/97-201-01 Reactor operating with no FAM or replacement system operative as required by TS 3.5.1 Radiation Monitoring.)

II. Maintenance

M1 Conduct of Maintenance

M1.1 Surveillances and Limiting Conditions for Operation

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed selected surveillance records, data sheets and records of tests, licensee procedures, reactor logs, checklists, periodic reports, and interviewed staff.

b. Observations and Findings

Daily and other periodic checks, tests, and verifications for TS required LCOs were performed as required. Surveillance and LCO verifications were completed on schedule as required by TS and applicable procedures. A number of the surveillances and LCO verification were performed at intervals more frequent than required by TS. All were within prescribed TS and procedure parameters and in close agreement with the previous surveillance results.

The facility had one individual responsible to track and coordinate all required TS surveillances, checks, testing, training, audits, etc. The computer program was used to provide tracking, reminders, schedules, and checklists to staff.

This provided clear and concise control of the reactor operational tests and surveillances. Use at the facility was comprehensive and timely.

c. Conclusions

The licensee's program for surveillance and LCO confirmations satisfied TS requirements.

M2 Maintenance of Facilities and Equipment

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed maintenance and reactor logs, RSB minutes, repair records, the computer tracking program records, observed facility and equipment during an accompanied tour and interviewed staff.

b. Observations and Findings

Routine/preventative maintenance was controlled and documented in the computer system and/or reactor maintenance and operations logs or files. Unscheduled maintenance or repairs were submitted on a facility work/modification request and were reviewed to decide if they were safety related and thus would need a change evaluation per 10 CFR 50.59. Verifications and operational systems checks were performed to ensure system operability before return to service. Trends were identified and problems resolved as required.

In discussion with the inspector the reactor staff stated the surveillance/LCO and maintenance tracking systems were to be combined to enhance control of facility maintenance.

c. Conclusions

Maintenance logs, records, performance, and 50.59 reviews satisfied TS and procedure requirements.

M8 Miscellaneous Maintenance Issues

a. Scope (Inspection Procedure 69001)

The records pertaining to the year 2000 (Y2K) concerns were reviewed.

b. Observations and Findings

As with most research reactors, the NSC reactor has few systems using digital computer controls or date functions that could be affected by Y2K problems. NSC memorandum 006-98, dated February 12, 1998, from the facility computer manager to the NSCD reported on their evaluation of the potential Y2K effects. With one exception, the Canberra counting equipment, there would be no problems due to Y2K. Canberra was in the process of checking its software for Y2K compliance and the NSC was tracking their progress.

c. Conclusions

Y2K concerns were being addressed.

III. Engineering

E1 Conduct of Engineering, Design Changes

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed selected design change packages, associated procedures and drawings, logs, records, staff meeting records, and RSB files. The inspector also interviewed staff.

b. Observations and Findings

Changes were controlled by requiring a facility staff review and a committee review, and were recorded and tracked individually. Facility work/modification requests were used for this process.

The packages 98-0024 and 98-0014 for the scram reset circuit and quick disconnects for reactor bridge modifications were reviewed. The evaluations were acceptable with supporting documentation and information. RSB involvement was also comprehensive. Post installation verification testing of the systems was thorough. Procedure and drawing changes were included and were consistent with the observations by the inspector.

The proactive response of the NSC staff in investigating a potential failure of a protective safety system, previously experienced and reported by the Oregon State University Research Reactor, was commendable. (Letter date March 18, 1998, from NSCD to USNRC, subject: Potential Reactor Safety System Failure Discovered with Reactor Shutdown) This resulted in the above noted corrective modification 98-0024.

c. Conclusions

Design changes satisfied TS and regulatory requirements.

IV. Plant Support

R1 Radiological Protection and Environmental Surveys

a. Scope (Inspection Procedure 69001)

The inspector reviewed procedures, survey records, toured the exterior of the waste storage building, and interviewed staff.

b. Observations and Findings

Radiation surveys of the interior and exterior of the waste storage building were being performed. Surveys were sufficient and reasonable under the circumstances to evaluate the extent of radiation levels and potential radiological hazards present. Violation 50-128/9701-05 the failure to perform radiation surveys as required by 10 CFR 20.1501(a) is closed.

The licensee had erected a new fence between the main fence surrounding the NSC and the front of the waste storage building. This provides a controlled area accessible only by authorized persons. The radiation monitors were then relocated to this fence line to monitor unrestricted area exposures. Review of the exposures and the licensees calculations for occupancy factors confirmed that the licensee met the requirements of 10 CFR 20.1301 for annual dose to the public. Violation 50-128/9701-06 the failure to demonstrate compliance with dose limits for individual members of the public as required by 10 CFR 20.1302(b) is closed.

c. Conclusions

Radiation surveys of the interior and exterior of the waste storage building were being acceptably performed. Doses to the public satisfied license, TS, and regulatory requirements.

R8 Radioactive Material Transfer

a. Inspection Scope (Inspection Procedure 69001)

The inspector observed transfer of irradiated material to a commercial licensee, reviewed transfer checklists, shipping records, and interviewed staff

b. Observations and Findings

Radioactive materials produced by the reactor for use by the university staff or outside organizations were tracked as required. The reactor staff properly packaged, surveyed, and released materials to on-campus investigators, and to entities outside the university. Transfer documentation was kept on file as required.

The inspector observed the retrieval, packaging, and shipment of an Iridium seed activation. Proper clothing and dosimetry were worn by the staff performing the operation. Acceptable radiation surveys were performed before, during, and after the retrieval. Shielding, stand-off tools, and efficient time use during the procedure verified that the ALARA concept was heeded.

One can became stuck during its retrieval from the vent tube. The staff responded in concert using pre position tools and contingency procedures to free the can and continue the packaging process.

c. Conclusions

Radioactive material was retrieved, packaged, transferred, and shipped in accordance with licensee procedures, TS, 10 CFR 49 and 10 CFR 20 requirements.

P1 Conduct of Emergency Preparedness Activities and Staff Training

a. Scope (Inspection Procedure 69001)

The emergency plan (EP) procedures and drill records for the reactor were reviewed.

b. Observations and Findings

The facility drills were being conducted annually as required. The exercises were conducted according to, and fulfilled, the requirements stipulated in the EP. Key emergency response personnel demonstrated that they could respond to emergencies as required. Offsite responses by security, law enforcement, and other responders were acceptable for the scenarios involved. Items identified by individual critiques were addressed, evaluated, and then incorporated when appropriate. Violation 50-128/9701-08, the failure to conduct annual emergency drill, is closed.

c. Conclusions

EP drills and training were acceptably being conducted.

S1 Conduct of Security and Safeguards Activities

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed the NRC-approved security plan, toured the facility, reviewed security logs, reports, and security related documents, and interviewed reactor staff.

b. Observations and Findings

Unescorted access was controlled as outlined in the NRC approved security plan. Reactor test/verification of the security systems were performed as required. Related key control activities also satisfied plan requirements. University police provided security as required by the plan. The inspector verified that University police security checks were performed, tracked, and corrective actions taken when required. Communication between the reactor staff and the University Police was ongoing.

During the inspection security system communications failed. The resulting response by university and reactor staffs was immediate, followed plan procedures, and acceptably mitigated the temporary disruption in communications.

c. Conclusions

Conduct of security activities satisfied the NRC approved plan.

S2 Status of Security Facilities, Equipment, and, Procedures.

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed the NRC approved security plan, toured the facility, reviewed security logs, reports, and security related documents, and interviewed reactor staff.

b. Observations and Findings

The inspector verified that the security system was as described in the NRC approved plan. The system provided detection and assessment of unauthorized access or removal of special nuclear material from the facility. The inspector verified that the alarms, devices, and procedures were adequate to allow the university police to detect and respond to unauthorized activities. Response rosters and emergency phone lists were current and posted.

c. Conclusions

Security facilities, equipment, and, procedures satisfied plan requirements.

S3 Security and Safeguards Procedures and Documentation

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed the NRC approved security plan, toured the facility, reviewed security logs, reports, and security related documents, and interviewed reactor staff.

b. Observations and Findings

The plan was properly secured against release to unauthorized individuals. The plan had been reviewed and properly updated as required. Changes to the plan had been forwarded to the NRC within the required time frame. The periodic audit of the plan had been completed as required.

The inspector verified that the records required by the security plan to be retained on file were being maintained.

c. Conclusions

Security procedure documentation satisfied plan requirements.

S5 Security and Safeguards Staff Training and Qualification

a. Inspection Scope (Inspection Procedure 69001)

The inspector reviewed the NRC approved security plan, toured the facility, reviewed security logs, reports, training records and security related documents, and interviewed reactor staff.

b. Observations and Findings

Security training was provided to the reactor staff as part of the requalification program. Annual training was provided to the university police as required by the plan. Site tours were also provided to the police biennially.

c. Conclusions

Security procedure documentation satisfied plan requirements.

V. Management Meetings

X1 **Exit Meeting Summary**

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on November 5, 1998. The licensee acknowledged the findings presented.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. Asher	Operations Manager, NSC
T. Fisher	Reactor Maintenance Supervisor, NSC
*S. O'Kelly	Assistant Director, NSC
*T. Parish	Member, RSB
*D. Reece	Director, NSC
*F. Sanchez	Reactor Administrative Assistance, NSC
L. Vasudevan	Radiation Safety Officer, NSC

INSPECTION PROCEDURE (IP) USED

IP 69001: CLASS II NON-POWER REACTORS

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

none

Closed

NCV 50-128/97-201-01	Reactor operating with no FAM or replacement system operative as required by TS 3.5.1 <u>Radiation Monitoring</u>
VIO 50-128/9701-01	Failure to follow reactor requalification program
VIO 50-1 28/9701-02	Failure to attend requalification lectures
VIO 50-128/9701-03	Failure of operators to have physical examinations every 2 years.
VIO 50-128/9701-04	Failure to audit as required by TS
VIO 50-128/9701-05	Failure to survey
VIO 50-128/9701-06	Failure to demonstrate compliance with dose limits for individual members of the public 20.1302(b)
VIO 50-128/9701-07	Possession of radioactive material for an unlicensed activity
VIO 50-128/9701-08,	Failure to conduct an annual emergency drill

PARTIAL LIST OF ACRONYMS USED

DHP	Duty HP
EP	Emergency Plan
FAM	Facility Air Monitoring
FSAR	Final Safety Analysis Report
HP	Health Physics
LCO	Limiting Condition for Operation
NRC	Nuclear Regulatory Commission
NSCAD	Nuclear Science Center Assistant Director
NSCD	Nuclear Science Center Director
NSCOM	Nuclear Science Center Operations Manager
RO	Reactor Operators
RSB	Reactor Safety Board
RSO	Radiation Safety Officer
SS2	Shim Safety No. 2
SRO	Senior Reactor Operators
TEES	Texas Engineering Experiment Station
TS	Technical Specifications
Y2K	Year 2000